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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,516	10/14/2005	Hans-Georg Gobbel	279692US0PCT	1599
22850	7590	10/01/2007		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER GALLIS, DAVID E	
			ART UNIT 1625	PAPER NUMBER
			NOTIFICATION DATE 10/01/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/553,516	Applicant(s) GOBBEL ET AL.	
	Examiner David E. Gallis	Art Unit 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 10 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6, 8, 9 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/14/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1 through 6 and 8 through 13 are pending. Claims 1 through 6 and 8 through 13 have been amended. Claims 7 and 14 through 16 have been cancelled. Applicant's claim to priority of Germany 10317520.2 (April 16, 2003) is acknowledged.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 and 12 recite the limitation "...refrigeration effect which is transferred by the at least one heat exchanger to at least one of (i), (ii), or (v)..." in each claim. There is insufficient antecedent basis for this limitation in the claims.

Claims 5 and 12 both recite the transfer of refrigeration effect by at least one heat exchanger to at least one of (i), (ii), or (v) of the epoxidation process of claim 1.

Limitation (i) of claim 1 is a compressed liquid alkene with no stated change in state. It is not clear what the function of the exchanged refrigeration effect is with regard to the static state of the said compressed liquid alkene? Limitation (ii) of claim 1 is the depressurization and vaporization of at least part of the compressed liquid alkene stream S1 with absorption of heat. It is not clear how the exchanged refrigeration effect can serve as a heat source or exactly what function the exchanged refrigeration effect would have in decompression process? Limitation (v) of claim 1 is the reaction of the at least partially vaporized alkene with at least one hydroperoxide in the presence of at least one solvent and at least one catalyst. Again, it is not clear how the exchanged

refrigeration effect would participate in the reaction process (i.e. to control the exothermicity, or condensation of the product stream, etc.,)?

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The heat exchangers and their functions in limitations (i), (ii), and (v). Claim 1 requires the inclusion of the heat exchangers and their functions as essential elements of limitations (i), (ii), and (v).

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The function and description of "circulated" solvent in limitation (iii) of claim 8. It is not know what the function of the said circulation is (i.e. for heat exchange purposes, for homogeneity purposes, etc.,)?

Claim Objections

4. Claims 11, 12, and 13 are objected to under 37 CFR 1.75 as being a substantial duplicates of claims 2, 3, and 4, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

5. Claims 2 and 11 are objected to because of the following informalities: as currently presented both claims recite the phraseology "...compressed liquid alkene are is propene,...". Appropriate correction is required.

6. Claim 13 is objected to because of the following informalities: as currently presented the claim is doubly denoted as "Claim 13 (Currently Amended): Claim 6 (Currently Amended):". Appropriate correction is required.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Gallis whose telephone number is 571-272-9068. The examiner can normally be reached on Mon-Fri 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. Gallis
Patent Examiner



BERNARD DENTZ
PRIMARY EXAMINER